

# Latin America's Prospects for Recovery

Under what circumstances will the Latin American countries be able to resume satisfactory economic growth and reestablish their creditworthiness? This is the basic question to be examined in seeking to look beyond the immediate situation in Latin America. In general terms, satisfactory economic growth for Latin America must be at least high enough to keep up with population and labor force growth and not too far from the 5 to 6 percent rates these countries have come to expect. At the same time a return to creditworthiness requires substantial reductions of debt burdens—debt servicing as a proportion of exports of goods and services or output—toward levels that were acceptable to commercial lenders in the recent past.

Resumption of economic growth along with reduced debt burdens is possible under favorable but not unrealistic assumptions. With moderate noninflationary growth in the industrial countries and adequate external financing, as called for by the International Monetary Fund (IMF) programs, the decline in income per capita could be halted within a year or so. Real growth could return to close to its rate over most of the 1970s fairly quickly. The debt burden could come down gradually. But, after a prolonged period of poor economic growth and declining income per capita, average income would return to its 1980 peak only in 1987 or beyond.

Even this modest recovery would be jeopardized by adverse world conditions or poor domestic policies. Low industrial country growth or high interest rates would substantially prolong the adjustment period. If the Latin

American governments do not keep to their IMF programs or lenders cannot be convinced to maintain credit flows, further severe economic cutbacks could be forced on Latin America.

This article discusses Latin America's prospects under alternative world conditions on the basis of a simulation model of the region's economy. The model is derived from past relations between world economic conditions and financial flows and Latin American imports and growth. The model allows for alternative assumptions for world economic growth, interest rates, and the availability of financing over the next several years. Any economic model can only suggest the possible range of outcomes. The internal responses of the Latin American governments along with the external environment will be critical.

## **A simulation model of Latin America**

The economies in Latin America are obviously diverse, but it still is meaningful to look at the prospects for the region as a whole. The concentration of debt in Latin America is heavy. Seven of the ten largest developing country borrowers from banks are in the region. Nearly all Latin American countries are having debt-servicing problems. Sixteen Latin American and Caribbean countries already have IMF adjustment programs and others are considering them. Debt-servicing problems have spread throughout Latin America, in part because all the countries face similar economic conditions and in part because of a herd effect among creditors.

Many of these countries share other structural characteristics that cause concern. Inflation rates are much higher than in any other region of the world. Government deficits are frequently high and rising. And, despite important moves toward opening their economies to foreign trade in recent years, Latin American countries trade less than others of comparable population and economic development. Thus, it is useful to consider Latin America as a whole while remembering that exceptions to the general case are unavoidable.

A recovery of Latin America's economy depends on its ability to import. Frequently, in looking at the relationship between imports and growth, it is not clear whether the rate of economic growth determines import levels or whether the ability to import limits the potential for growth. But, in Latin America, the volume of imports was cut by nearly one fourth in 1982. Reductions are continuing this year. This has been accompanied by the steepest sustained fall in gross domestic product (GDP) in Latin America in the last thirty years. The level of imports inevitably will be a strong constraint on economic growth over at least the next several years.

Any additional imports must be financed either through external borrowing or through increased exports. Latin America's limited access to commercial credit since 1982 restricts the overall current account deficit. The possibility for increasing exports depends largely on economic growth in the industrial countries and world inflation. Continued borrowing will add to debt and to debt servicing. The need to make interest payments reduces the proportion of export earnings available for imports. Chart 1 provides a schematic description of the relationships between these various factors and Latin America's growth and debt burden.

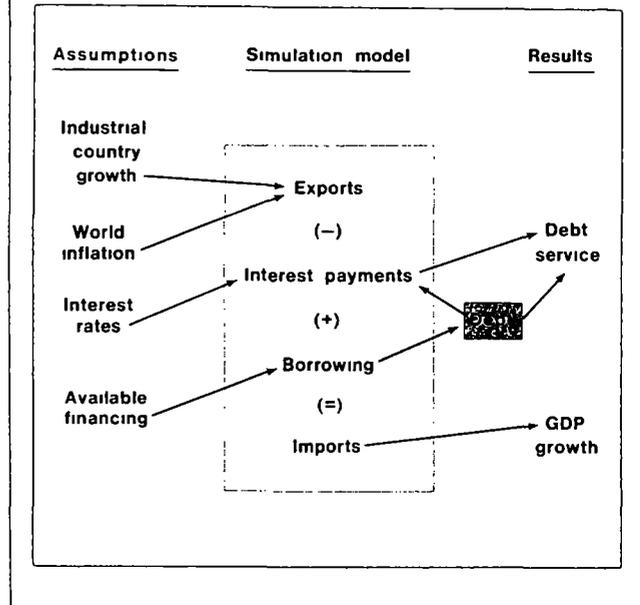
The intent of the model is to present the broad outlines of the economic prospects facing Latin America. By looking at alternative assumptions, the sensitivity of a Latin American recovery to varying world conditions can be explored. The model used here, like any other, is necessarily inexact and cannot capture fully all the determinants of growth. Importantly, it does not capture actions the Latin Americans can take themselves to improve the general efficiency of their economies. Moreover, the outlook for individual countries may be significantly better or worse than the general projections for the region as a whole.

#### Imports and GDP

More than half of Latin American imports consist of intermediate goods and raw materials used in the production process. When these are cut, production can continue only as long as inventories can be run down to replace them. At the same time, capital goods account for about one quarter of Latin American imports.

Chart 1

### Schematic Model of Latin American Economic Growth and Debt Service



Frequently no close domestic substitutes for these goods are available so that, if imports are held down for long periods, the potential for economic growth is reduced.

To capture these short- and medium-term influences the estimated relationship between growth and imports used in this model includes the percentage change both in the current year's imports and in average imports over the past five years.<sup>1</sup> The results indicate that a decline in real imports of 2 percent is associated with 1/2 percent lower GDP growth within the first year and another 1/2 percent lower growth over subsequent years. Imports are an important determinant of growth but they are not the only determinant. Other factors will influence the actual outcome in the future as they have in the past.

<sup>1</sup> The estimated equation is

$$g = 5.0 + 0.24DM + 0.28DMA \quad R^2 = 0.44$$

(2.46)    (1.26)    (3.46)

where  $g$  is growth of GDP,  $DM$  is the percentage change in merchandise import volume in the current year, and  $DMA$  is the average percentage change in real imports over the past five years. The estimation period is 1956 to 1980. Data on GDP are from J. W. Wilkie and S. Haber (eds.), *Statistical Abstract of Latin America*, merchandise imports are from the International Monetary Fund, *International Financial Statistics (IFS)*. The figures in parentheses are  $t$ -statistics. In this article, Latin America includes those countries classified by the IMF as nonoil developing countries in the Western Hemisphere.

These factors range from random elements, such as floods and droughts, to systematic influences that cannot be included in a multicountry aggregate model, such as higher savings rates or more efficient use of resources. The equation based on past relations between imports and growth, however, can be used to simulate likely feasible paths for growth. Over the next several years imports will be the major constraint on Latin America's ability to return to sustainable growth.

#### *Trade and industrial country growth*

The relationship between industrial country growth and world trade provides a central link between recovery in the industrial countries and improving external balances in Latin America. Just as trade declined during the recent industrial country recession, it can be expected to pick up in a recovery.

Estimates of the statistical correlation between industrial countries' growth and imports vary widely across countries, time periods, and the exact specifications of the statistical model used. Most estimates of the elasticity, or percentage change in import volume for each 1 percent change in growth, are in the range of 1.2 to 2.2.<sup>2</sup> For the purposes of this model an overall estimate in the middle of this range, 1.7, is taken.

Export earnings should grow even faster than export volume. The steep drop in commodities prices has already turned around. Prices have risen well over 10 percent in the past year. Latin America's commodities exports, like copper, tin, and grains, follow long-term world inflation trends, but they are also subject to sharp short-term swings. To pick up the impact of the general movement of world prices and short-term fluctuations, export prices are assumed to be a function of both world inflation and past export prices. The estimated equation suggests that over the longer run Latin American export prices move in line with world inflation. Over shorter time periods, however, Latin American export prices magnify changes in inflation. That is, when world inflation increases, Latin American export prices go up sharply, when world inflation slows, export prices drop. This reflects the wide swings in Latin American prices,

<sup>2</sup> See, for example, H. Houthakker and S. Magee in "Income and Price Elasticities in World Trade", *Review of Economics and Statistics* (May 1969); D. Warner and M. Klein in "Determinants of International Trade Flows", *Review of Economics and Statistics* (February 1983) provide a wider range of estimates for individual countries but most are around 1.5 to 2.0. A trade-weighted average of the individual elasticities for each study yields an overall income elasticity for imports of 1.7. W. Cline in *International Debt and the Stability of the World Economy* (Institute for International Economics, September 1983) suggests that the income elasticity for trade is as high as 3. But he also finds that there is a threshold industrial country growth of 1 percent below which import volume declines (i.e., there is an intercept of -3). When industrial country growth is around 3 percent, Cline's import projections do not markedly differ from using 1.7 as the elasticity without an intercept.

especially for commodities, over inflation cycles.<sup>3</sup>

Recovery in Latin America could be slowed by the depressed level of trade within the region. But, for all Latin American countries together, 64 percent of total exports went to industrial countries in 1979-81 and only 16 percent represented intraregional trade. Moreover, intraregional trade should pick up if growth in Latin America resumes. Economic recovery in the industrial countries thus remains the major influence on Latin American exports in the medium term.

Since Latin America's imports are more diverse than their exports, they have not been subject to as strong cyclical price trends. While Latin America contains both major importers and exporters of oil, the region as a whole is about in balance on oil trade. The sharp rise in oil prices during the 1970s did not significantly affect the combined terms of trade. Over the projection period it is assumed that oil prices move in line with world inflation. Thus, Latin America's import prices follow the index of industrial country prices more closely than export prices.<sup>4</sup>

#### *Interest and other service payments*

Interest payments on external debt have grown sharply in recent years. They now make up half of total service payments, up from 25 percent in 1973. Most international bank lending is based on a spread over the London interbank offer rate (LIBOR). This rate has come down to an average of 10 percent over the first ten months of this year from an average of 13 percent last year and 16½ percent in 1981. Increased spreads on rescheduled debt do not fully outweigh this decline. About one third of Latin America's debt is from official sources. Interest rates on official debt are usually lower than on private debt and subject to less fluctuation. The weighted average interest rate for private and official debt is used in the model. This overall average rate on

<sup>3</sup> The estimated equation is

$$XP = -0.63 - 0.32XP_{-1} + 1.38P \quad R^2 = 0.79$$

(0.34) (3.47) (10.01)

where XP is the percentage change in export prices and P is the percentage change in the industrial countries' price index for traded goods. The estimation period is 1956 to 1981. Data on price changes are taken from the *IFS*. Since the constant term is not significantly different from zero and the sum of the other coefficients is close to one, the equation implies that in the long run Latin American export prices move in line with world inflation. However, over the short run, the price of Latin American exports will rise 1.38 percent in response to 1 percent higher world inflation.

<sup>4</sup> Import price changes were estimated as

$$MP = 0.46 + 1.05P \quad R^2 = 0.85$$

(0.26) (10.20)

where MP is the percentage change in Latin American import prices and P is the industrial countries' price index for traded goods. This relationship was also estimated with lagged prices, but the coefficient was not significant. The estimation period is 1956 to 1981, using data from the *IFS*.

Table 1

**External Financing for Latin America in the Base Case**

In billions of dollars

Financial flows	Historical data		1983	1984	Projections for 1983 through 1987		
	1981	1982			1985	1986	1987
<b>Financing required</b>	<b>43.0</b>	<b>23.6</b>	<b>22</b>	<b>25<sup>1/2</sup></b>	<b>26</b>	<b>25</b>	<b>26</b>
Current account deficit	44.7	34.2	20	22 <sup>1/2</sup>	22	21	22
Increase in reserves	-1.7	-10.6	2	3	4	4	4
<b>Sources of financing</b>	<b>46.5</b>	<b>27.8</b>	<b>22</b>	<b>25<sup>1/2</sup></b>	<b>26</b>	<b>25</b>	<b>26</b>
Official flows							
Reserve related	0.8	4.6	4 <sup>1/2</sup>	3	2	- <sup>1/2</sup>	-1
Other official	5.0	4.5	4 <sup>1/2</sup>	5	5	5	5 <sup>1/2</sup>
Private flows							
Banks	31.1	11.3	9	13	14 <sup>1/2</sup>	15 <sup>1/2</sup>	16 <sup>1/2</sup>
Bonds, net	3.1	2.0	0	0	0	0	0
Direct investment	6.5	5.4	4	4 <sup>1/2</sup>	4 <sup>1/2</sup>	5	5
<b>Residual</b>	<b>-3.5</b>	<b>-4.2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Memorandum item							
Current account deficit as a percentage of exports (goods and services)	38	31	20	18	16	14	11

Projections for 1983 through 1987 are Federal Reserve Bank of New York staff estimates

Sources for historical data: International Monetary Fund, *World Economic Outlook* (May 1983) and Morgan Guaranty Trust Company, *World Financial Markets* (June 1983)

Table 2

**Growth and Debt Burden Indicators for 1987—Alternative Scenarios**

In percent

Scenario assumptions	Interest/ exports	Debt service/ exports	Debt/GDP	Current account deficit/exports	Real GDP growth*
Base case—moderate industrial country growth, interest rates, and financing	20	44	36	11	4.8
Alternative scenarios					
1 percent reduction of average industrial country growth	22	48	37	12	4.0
No decline in interest rates	24	49	37	11	4.3
No net bank lending	18	39	37	2	3.8
Reference items: historical values					
1982	30	54	38	31	0
1978-81	19	41	30	25	4.0
1973-77	12	30	25	20	5.0

\*Average real gross domestic product growth for 1984-87 in base case and alternatives, for reference items, average GDP growth for years indicated

Source for historical data: International Monetary Fund, *World Economic Outlook* (May 1983)

Latin American debt declined from 14 percent in 1981 to about 12 percent this year

Other service payments for transportation, insurance, and other incidental expenses play a relatively small role in Latin America's balance of payments. For the projections, service payments are estimated as a function of merchandise imports and service receipts are a function of merchandise exports. Transfers have never been important for Latin America. Transfers are assumed to remain constant in real terms

Taken together, the various components of the model relate the world economic environment to the economic prospects for Latin America over the medium term. Given assumptions about the world economy and financial inflows, the model can be used to project the key trends needed to assess Latin America's prospects—the trend rates of real economic growth and the debt burden.

### **Economic recovery under moderate assumptions**

To analyze Latin America's prospects it is reasonable to start with moderate assumptions on world economic conditions. Any assumptions about the future behavior of economic variables are uncertain, so that it is also important to look at the sensitivity of the resulting projections to alternative assumptions. With this in mind, the base projections for Latin America are derived from middle-ground assumptions for industrial countries' growth and the availability of financing from banks, official lenders, and direct investment. A plausible growth assumption is taken to be 3 percent average real growth in the industrial countries over the next five years. This is equal to average growth from 1973-80 (despite the 1974-75 recession) and well below the 4 $\frac{1}{4}$  percent average over the past two decades. This growth ought to be compatible with the inflation rate of 5 percent which we assume. With inflation in this range it is reasonable to suppose that world interest rates will tend to come down. The average interest rate facing Latin America is assumed to come down gradually 1/2 percent per year to 10 percent over the next four years and then remain constant

Significant amounts of external financing can be assumed only if the Latin American countries remain in compliance with their IMF programs. While inevitably there will be adjustments to meet changed circumstances, the major features of the programs must be observed if any new financing is to be forthcoming

Most IMF programs currently in place target an increase in bank claims on Latin American borrowers of around 7 percent per year. The base case projections assume bank claims increase 5 percent this year and 7 percent in subsequent years. This is substantially less than the 24 percent average increase in claims in 1980

and 1981. It is also below recent increases in the capital of large international banks. A 7 percent per year increase would still permit a gradual reduction of banks' exposure to these countries relative to the banks' capital base. International bank claims on Latin America<sup>5</sup> were \$180 billion at the end of 1982. The assumed increase in bank claims would mean \$9 billion in 1983 and then gradually rise to \$16 $\frac{1}{2}$  billion in 1987 (Table 1)

Lending by official agencies is also an important source for Latin American financial inflows. Official flows consist of reserve-related lending, principally from the IMF, and longer term official lending. Reserve-related lending, of course, has been crucial in the past year, rising from less than \$1 billion in 1981 to over \$4 $\frac{1}{2}$  billion last year. The IMF programs for Latin America project this lending to remain at this level this year, then to taper off through 1985. Other official lending is generally for longer periods and not subject to rapid shifts. This category of official lending is projected to rise 7 percent per year.

Direct investment provided \$6 $\frac{1}{2}$  billion in financing for Latin America in 1981. Deteriorating conditions reduced direct investment to an estimated \$5 $\frac{1}{2}$  billion in 1982 and to perhaps only \$4 billion this year. Our base estimate is for direct investment to grow at the same rate as world inflation (5 percent). Direct investment could be much stronger than this if economic conditions improve and the proper incentives are provided. Bonds and other forms of portfolio investments provided a net \$3 billion as recently as 1981 but no significant amount of new bond financing is projected

Under these constraints on available finance the Latin American current account deficit is assumed to come down to about \$20 billion in 1983 and to average about \$22 billion from 1984 through 1987. International reserves are assumed to grow only \$2-4 billion per year after falling over \$12 billion since 1980. This is in line with the IMF targets and would allow a gradual improvement in reserves relative to imports. The current account deficit would fall more than \$20 billion from its peak of \$45 billion in 1981. The current account deficit together with the level of exports will determine imports and potential growth

### *Recovery under the base case*

With these assumptions about world economic growth and available financing, the relationships used in our model suggest that most Latin American countries should be able to recover fairly quickly and to reduce their foreign debt burden (debt ratios) substantially within two to five years. Latin American countries could

<sup>5</sup>As reported by the Bank for International Settlements, "International banking developments—fourth quarter, 1982" (press release)

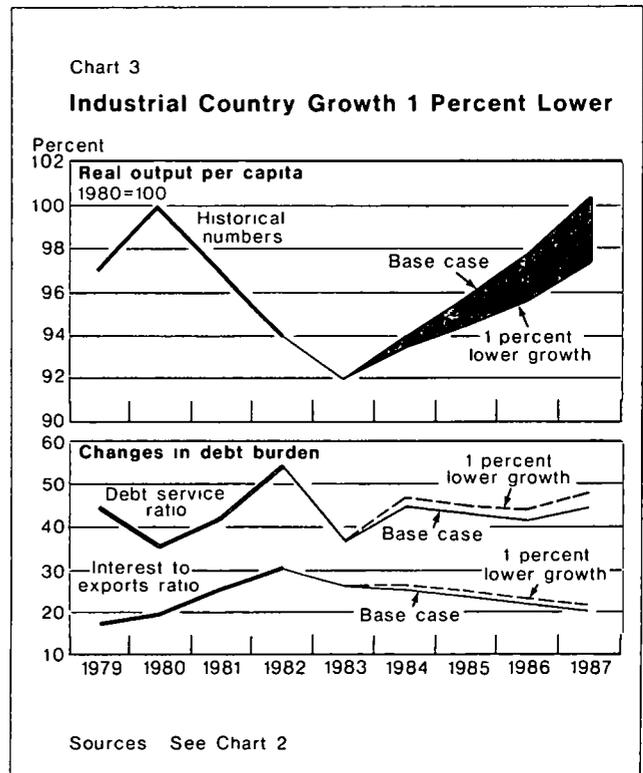
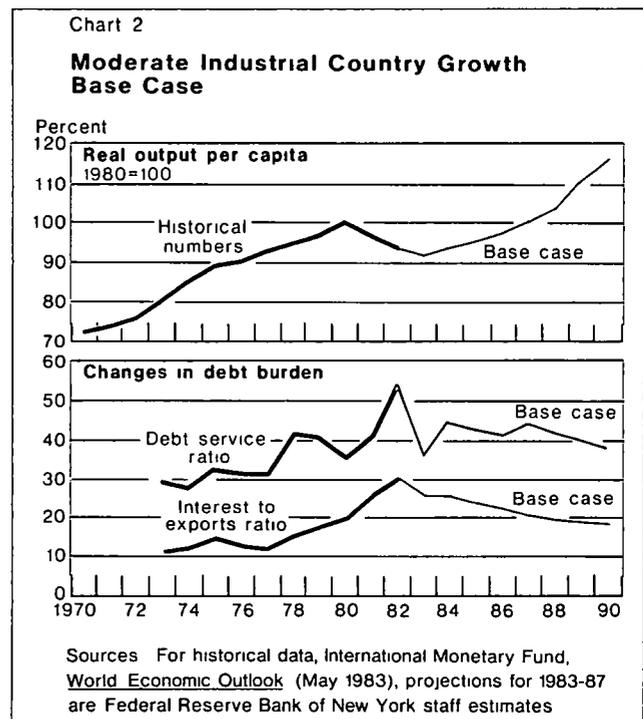
begin to recover in 1984 and return on average to real growth rates of nearly 5 percent a year by 1985

The simulation suggests that by the end of the decade imports would no longer be the major constraint on growth. Chart 2 shows the very sharp declines in real GDP per capita these countries are experiencing. It also shows that most of these declines should have occurred already. With recovery in the industrial countries, export growth should resume and imports should be able to grow significantly without the need for excessive amounts of external financing. At the same time, debt positions should improve, so that by 1987 there could be a return to the sort of debt ratios that were common in the late 1970s. Debt relative to GDP should fall by 2 percentage points from its 1982 level. The ratio of interest payments on debt to exports should fall to 20 percent, down from 30 percent last year and close to the average from 1978 to 1981 (Table 2). An important measure of debt-servicing capacity—the ratio of debt servicing to exports—also would move toward its level of the late 1970s. There should be a slight upward movement in this ratio in 1987 as rescheduled debt comes due, but continued export growth thereafter should restore the downward trend.

The return to moderate growth and sustainable debt ratios would occur at a very substantial cost. By the end of this year, per capita income will have fallen for the third straight year and will be 8 percent below its peak in 1980. After 1983, as growth picks up, per capita income should expand fairly rapidly. But it will not come back up to its 1980 level before 1987.

Once this long adjustment period is over, the model suggests that a return to growth rates close to those Latin America achieved in the past is possible. But the critical period is over the next two or three years. If these countries can look toward a return to growth and reduced debt ratios, their adjustment programs should be more acceptable. And banks will be more likely to provide adequate financing.

The projection model we have used for Latin America implicitly assumes that governments will manage no better or worse than they have over the past two or three decades. For some countries this means a decided improvement over their recent performance. But, the general framework used here does not suppose that these economies will shift radically toward export-led growth, remove all their built-in inflationary biases, or pursue other major reforms, no matter how desirable these may be on their own grounds. If some of these measures are taken successfully, Latin America's growth could be substantially better than projected. If they do not follow at least a minimal set of rational economic policies, however, little or no improvement will occur, no matter how favorable the external environment.



*Prospects in alternative cases*

Given the uncertainty behind the assumptions of moderate noninflationary growth of the industrial world, adequate external financing, and continued adjustment policies by Latin America, it is appropriate to examine the sensitivity of the outcome to alternative developments

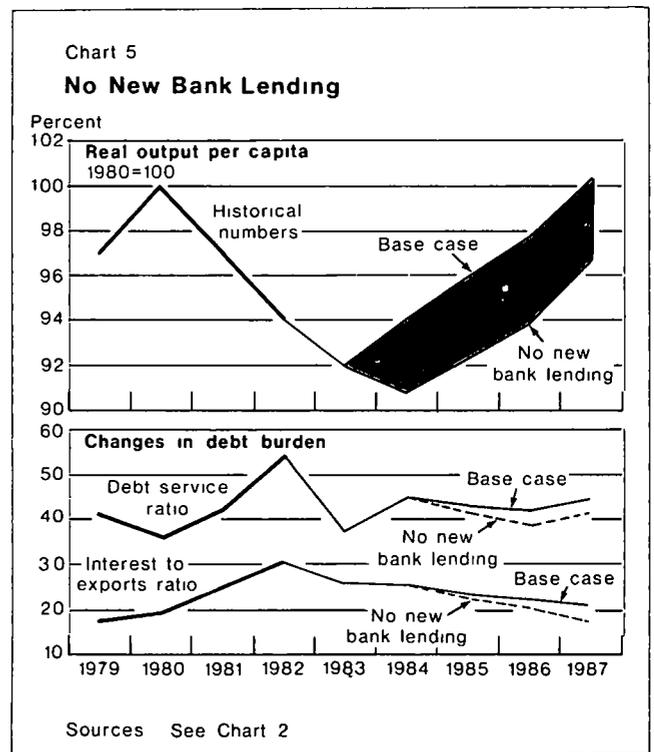
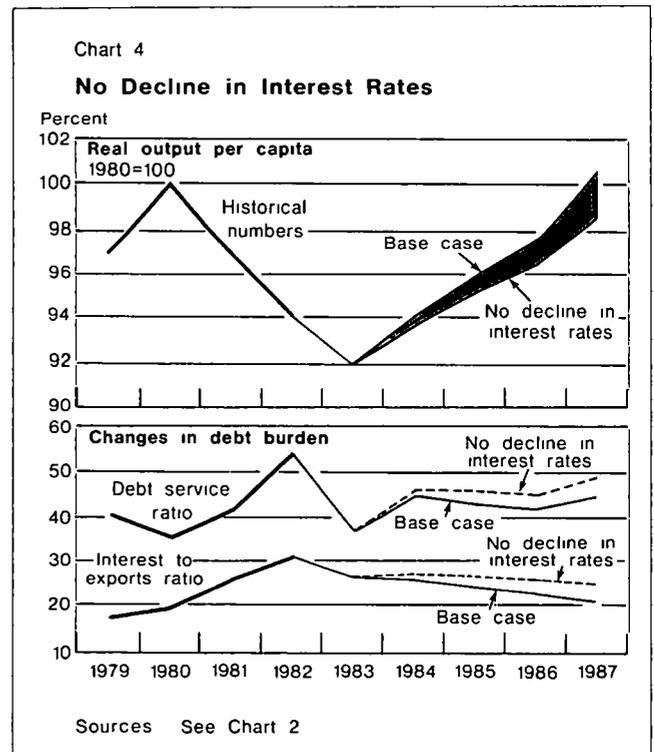
**An interrupted industrial country recovery** Each 1 percent reduction of average industrial country growth would reduce industrial country imports by nearly 2 percent and lower Latin America's annual growth by 3/4 percent over the 1984 to 1987 period (Table 2) This highlights the importance of renewed exports for a Latin American recovery The ratio of debt servicing to exports would show little improvement until at least 1987 Per-capita GDP in 1987 would still be 3 percent below its 1980 level (Chart 3) This delay would add to the already difficult social and economic pressures

**Higher real interest rates** If average interest rates including the spread over LIBOR stay around 12 percent rather than decline toward 10 percent as assumed in the base case, annual real GDP growth would average 1/2 percent less over 1984-87 than in the base case, even if industrial country growth remained at 3 percent (Table 2, Chart 4) The sharpest impact would be on the ratio of interest payments to exports Rather than declining quickly as in the base case, this ratio would remain close to 25 percent in 1987, well above the levels of the late 1970s The ratio of debt servicing to exports would also remain high The Latin American financing position would thus remain precarious

**Inadequate external financing** If no net bank lending occurs (so that bank claims on Latin America remain constant), real GDP growth would average a full 1 percent less each year through 1987 (Table 2, Chart 5) Recovery could not even begin until at least 1985 Per-capita income would fall again in 1984 In fact, in 1985 average income would barely equal its current depressed level The average income level would remain below its 1980 peak beyond 1987 Ironically, the debt burden indicators would improve since exports would go up faster than debt But this clearly would not compensate for the economic deterioration Continued heavy interest payments would be politically difficult, but failure to pay interest could disrupt trade and further reduce imports and growth

**A possible but not certain recovery**

Our analysis indicates that the Latin American countries could resume reasonably satisfactory growth after two or three years of difficult adjustments Relative debt burdens could be reduced and these countries could move toward renewed creditworthiness Recovery could occur under a set of moderate and plausible assump-



tions about world economic growth, interest rates, and the availability of external financing. But it would not require either a boom in industrial country growth or inflation, major improvements in domestic economic policies, or enormous amounts of external financing

Lower industrial country growth or higher interest rates than assumed here would delay the recovery. Latin America would have to extend its economic austerity beyond the measures it has taken, and these austerity programs would continue further into the future.

For Latin America to recover it is essential that financial flows not be cut off to those countries that are making adjustments. It is hard to imagine that lending will continue unless countries remain committed to the

adjustment measures incorporated in the IMF programs. At the same time, the moderate rates of external financing these programs call for should be sufficient to permit a resumption of growth fairly quickly.

There is a legitimate concern that these countries will be forced to restrict their imports so much that a return to growth cannot be foreseen. Or that recovery will require massive amounts of new bank lending. The analysis presented here suggests that, for most Latin American countries, recovery is possible. Latin American countries should be able to resume satisfactory growth and reestablish their creditworthiness under reasonable assumptions about their own actions and the world economic environment.

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